

Notice of Allowability

Application No.

10/631,242

Examiner

Cameron Saadat

Applicant(s)

LVOVSKIY, MATVEY

Art Unit

3713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed 9/28/2004.
2. ☒ The allowed claim(s) is/are 1, 2, 7, 11, 16-18 and 20.
3. ☒ The drawings filed on 8/1/2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Boris Leschinsky on May 2, 2005. The application has been amended in the claims as follows:

Claim 1: line 12, after "adapted to send" replace "a" with -- an --

REASONS FOR ALLOWANCE

Applicant's arguments, filed 8/29/2004, with respect to claims 1, 11, and 20 have been fully considered and are persuasive. Independent claims 1, 11, 20 and their respective dependent claims are allowed. The following is an examiner's statement of reasons for allowance:

The prior art of record fails to teach the specific combination of elements as claimed in independent claims 1, 26, and 51.

In particular, as per claim 1, the prior art fails to teach *inter alia* a weapon unit equipped with an emitter unit comprising a light emitter and a cordless firing event detection means, the weapon equipped with a means to activate both the light emitter and the firing event detection means simultaneously upon pulling a trigger of the weapon unit; in combination with a screen unit comprising a screen having a diffusing reflective surface and a cordless firing event detection sensor positioned to receive a signal sent by said firing event detection means and

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adapted to send out a firing event electrical signal, an optical unit having an optical target generation means to project an optical target onto the screen, the optical unit also equipped with a sensing means to detect whether the target has been hit by a light beam from the light emitter and reflected by the screen, the sensing means adapted to send an electrical signal; a central computer adapted to control the position of the target by operating the optical target generation means; the central computer also adapted to receive the firing event electrical signal from the cordless firing event detection sensor of the screen unit, and adapted to receive the electrical signal from the sensing means to determine whether the target has been hit. The closest prior art of record, *Parades*, fails to disclose the feature of providing a weapon equipped with a means to activate both the light emitter and the firing event detection means simultaneously upon pulling a trigger of the weapon unit. *Chung et al.* (US Patent Application Publication 2004/0121292) discloses the feature of providing a cordless firing event detection means, however does not teach or suggest this feature in combination with the elements as claimed.

Similarly, as per claim 20, the prior art of record fails to teach or fairly suggest the feature of providing a weapon unit equipped with an emitter unit comprising a light emitter to send a firing light beam and an infrared emitter to send a firing event infrared beam, the weapon unit also equipped with a means to activate both the light emitter and the infrared emitter simultaneously upon pulling a trigger of the weapon unit; in combination with the specifically claimed screen unit, optical unit, and central computer.

In addition, as per claim 11, the prior art fails to teach *inter alia* a training simulator for sharp shooting comprising: a weapon unit equipped with a light emitter and a means to activate the light emitter upon pulling a trigger of the weapon unit to generate a firing light beam, a

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screen having a diffusing reflective surface, an optical unit having an optical target generation means to project an optical target beam onto the screen, the optical unit equipped with a sensing means adapted to send an electrical signal indicating a presence or absence of a firing light beam from the light emitter as reflected by the screen, the optical unit comprising a movable mirror system having a fixed position mirror and a rotating mirror adapted to both direct the optical target beam from the optical target generation means to any predetermined area of the screen and to direct the firing light beam from the screen into the sensing means, the moveable mirror system providing for a common travel path along at least a portion of the optical axes of the light beam and the optical target beam, and a central computer adapted to control the position of the optical target on the screen by operating the optical target generation means, the central computer adapted to receive the electrical signal from the sensing means to determine whether the target has been hit. The closest prior art of record does not teach or fairly suggest the feature of providing an optical unit comprising a movable mirror system having a fixed position mirror and a rotating mirror in combination with the specific elements claimed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Chung et al. (US Patent Application Publication 2004/0121292 A1) – discloses a cordless firing event detection means.

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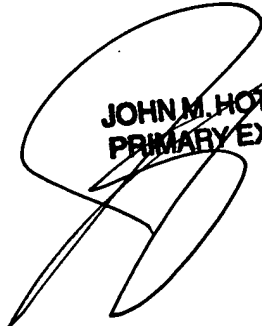
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cameron Saadat whose telephone number is (571) 272-4443.

The examiner can normally be reached on M-F 9:00 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan Thai can be reached on (571) 272-7147. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Cameron Saadat
May 2, 2005



JOHN M. HOTALING, II
PRIMARY EXAMINER